

**WHAT IS CLAIMED IS:**

- 1        1.        A method for protecting integrated circuitry from induced charge damage  
2        during device fabrication, the method comprising:  
3                forming an ONO layer on a substrate, the ONO layer having an opening  
4        therein;  
5                filling the opening with a thin insulating layer; and  
6                forming a polysilicon layer on the ONO layer and the thin insulating layer.
- 1        2.        The method of claim 1 wherein filling the opening with a thin insulating layer  
2        comprises providing an oxide layer with a thickness of no more than about eighty  
3        Angstroms.
- 1        3.        The method of claim 2 further wherein the thicknesss of the thin oxide layer is  
2        less than about 60Å.
- 1        4.        The method of claim 1 further comprising creating an n-well in the substrate  
2        prior to forming the ONO layer, where the opening in the ONO layer is over the  
3        n-well.
- 1        5.        The method of claim 4 further comprising forming an n+well at a junction  
2        between the substrate and the n-well.
- 1        6.        The method of claim 4 further comprising creating a p-well within the n-well,  
2        wherein the opening in the ONO layer is over the p-well.
- 1        7.        The method of claim 6 further comprising forming a p+well adjacent the  
2        p-well.
- 1        8.        The method of claim 1 further comprising isolating the thin oxide layer from  
2        the substrate with a PN junction.
- 1        9.        The method of claim 1 further comprising isolating the thin oxide layer from  
2        the substrate by a pair of back-to-back PN junctions.

- 1      10.      The method of claim 9 wherein the PN junctions function as diodes.

- 1 11. A structure for protecting NROM devices from charge induced damage during  
2 device fabrication, the structure comprising: a substrate;  
3 an ONO layer disposed on the substrate, the ONO layer having an opening  
4 therein;  
5 a thin insulative layer disposed on the substrate within the opening in the  
6 ONO layer; and  
7 a polysilicon layer disposed on the ONO layer and on the thin insulative layer  
8 the polysilicon layer being coupled to circuitry to be protected.
- 1 12. The structure of claim 11 wherein the thin insulative layer comprises a thin  
2 oxide layer.
- 1 13. The structure of claim 12 wherein the thin oxide layer has a thickness less than  
2 about 80Å.
- 1 14. The structure of claim 13 wherein the thin oxide layer has a thickness less than  
2 about 60Å.
- 1 15. The structure of claim 12 further comprising a first PN junction between the  
2 thin oxide layer and the substrate.
- 1 16. The structure of claim 15 wherein the first PN junction comprises an n-well in  
2 a p-type substrate.
- 1 17. The structure of claim 16 further comprising a second PN junction.
- 1 18. The structure of claim 17 wherein the second PN junction comprises a p-well  
2 within the n-well.
- 1 19. The structure of claim 18 further comprising an n+well at a junction between  
2 the n-well and the substrate.
- 1 20. The structure of claim-19 further comprising a p+well adjacent to the p-well.